

In the claims:

The claims standing for examination are reproduced below.

1. (Currently amended) A composite structure for use in contact with an animal's flesh, comprising:

one bottom layer of natural padding material having direct contact with the animal's flesh; or more layers of padding material; and

one second layer of anti-bacterial batting material above and adjacent to the padding material;

one third layer of shock-absorbing material above and adjacent to the anti-bacterial batting; and

one top layer of high friction non-skid material above and adjacent to the third layer;

wherein a phase change material (PCM) is joined to one of the layers of padding material on the side opposite the side contacting the animal's flesh.

2. (Original) The composite structure of claim 1 wherein the padding material is one or the other of woven or non-woven material, and the PCM is adhered in a plurality of discrete units to individual fibers of the padding material.

3. (Currently amended) The composite structure of claim 1 wherein ~~one of the layers of~~ padding material is an open-celled or closed-cell foam material, and the PCM is coated on individual cells of the foam material.

4. (Currently amended) The composite structure of claim 1 wherein the bottom layer is sheep's wool comprising a first layer of felt material, disposed to lie next to the animal's flesh, and a second layer comprising PCM is a non-woven PCM-coated sheet material applied to the felt wool on the side away from the animal's flesh.

5. (Currently amended) The composite structure of claim 4 wherein the ~~second layer~~ PCM-coated sheet material is applied to the first layer by needle-pointing.

6. (Canceled)

7. (Original) The composite structure of claim 1 wherein the PCM material is chosen to be a material for which the phase-change temperature is about ninety-five degrees Fahrenheit.

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Original) The composite structure of claim 1 further comprising areas of highly wear-resistant material in areas deemed to be subject to relatively more wear than other areas.

12. (Canceled)

13. (Currently amended) The composite structure of claim ~~12~~ 1 wherein the shock absorbing material is one of an open-celled foam, a visco-elastic material, a gel material, or a closed-cell foam.

14. (Currently amended) The composite structure of claim ~~13~~ 1 wherein the shock-absorbing material is one of a visco-elastic or open-celled material, in at least 7-pound weight.

15. (Currently amended) The composite structure of claim ~~12~~ 1 further comprising a pocket between two layers of padding material for enclosing the shock-absorbing material.

16. (Original) The composite structure of claim 15 wherein the pocket comprises a closure for retaining the shock-absorbing material in the pocket.

17. (Currently amended) The composite structure of claim 16 wherein the closure comprises one of a zipper, a set of buttons and button-holes, a set of eyelets with laces, or a closure tape such as VelcroTM ~~style closure~~.

18. (Currently amended) The composite structure of claim 1 wherein at least one layer comprises fiber based on rare earth elements, and optically responsive to both wavelengths of ambient light and energy produced by an animal's body, to ~~interactive~~ interact with the animal in a manner to increase oxygenated blood flow through cell structure of the flesh.